

## Hydrologic Model Manager

<b>Short Name</b>	PHABSIM
<b>Long Name</b>	Physical Habitat Simulation System
<b>Description</b>	
<b>Model Type</b>	1-dimensional hydraulic simulation coupled with physical habitat simulation
<b>Model Objectives</b>	provide relationship of changes in habitat with changes in discharge to decision makers
<b>Agency Office</b>	U.S. Geological Survey, Mid-continent Ecological Science Center
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<b>Model Structure</b>	Step-backwater, stage-discharge regression, frequency of observation of depth, velocity and channel index habitat utilization applied to study site area
<b>Interception</b>	
<b>Groundwater</b>	
<b>Snowmelt</b>	
<b>Precipitation</b>	
<b>Evapo-transpiration</b>	
<b>Infiltration</b>	
<b>Model Paramters</b>	Manning's n, habitat suitability criteria (HSC) for species
<b>Spatial Scale</b>	typically up to 1 km
<b>Temporal Scale</b>	Instantaneous, model results should be supplied to habitat time series models
<b>Input Requirements</b>	Transect bathymetry, stage-discharge pairs, transect velocity distributions
<b>Computer Requirements</b>	Pentium, Win 95
<b>Model Output</b>	Weighted Usable Area (units of habitat as ft <sup>2</sup> /1000 ft or m <sup>2</sup> /km) for each life stage of each species for which habitat suitability criteria were supplied
<b>Parameter Estimatr Model Calibrtn</b>	A calibration procedure is provided in the user documentation
<b>Model Testing Verification</b>	Published in various organs since 1978, testing of conversion to Windows format ongoing.
<b>Model Sensitivity</b>	Highly dependant on the quality and applicability of the HSC
<b>Model Reliability</b>	
<b>Model Application</b>	
<b>Documentation</b>	Documentation for the Windows Version due Sept 2000.
<b>Other Comments</b>	

Date of Submission	5/1/2001 2:03:03 PM
Developer	
Technical Contact	
Contact Organization	